<u>ABSTRACT</u>

An ultrasonic signal processing method for improving the signal-to-noise ratio in ultrasonic measurements comprises the transmission of a predefined timed sequence of a number of ultrasonic burst signals at a first transducer, and reception of a signal representing said transmitted sequence of ultrasonic burst signals at a second transducer. This signal is processed by addition of multiple time-shifted copies of the received signal to said original received signal to obtain a sum of the original received signal and its time-shifted copies. An original burst signal having an improved signal-to-noise ratio is reconstructed from this sum.